



U.S. Department of Energy  
**Office of River Protection**  
P.O. Box 450, MSIN H6-60  
Richland, Washington 99352

0074549

07-ESQ-215

NOV 26 2007

Ms. Jane A. Hedges, Program Manager  
Nuclear Waste Program  
Washington State  
Department of Ecology  
3100 Port of Benton Blvd.  
Richland, Washington 99354

Dear Ms. Hedges:

CH2M HILL HANFORD GROUP, INC. (CH2M HILL) REPORT OF STATE WASTE  
DISCHARGE PERMIT ST 4511 NONCOMPLIANCE

The Washington State Department of Ecology (Ecology) State Waste Discharge Permit ST 4511, "Categorical Miscellaneous Streams on the Hanford Site," Condition G.11.C, "Noncompliance Notification," requires that a detailed written report be submitted to Ecology within 30 days of discovery of a noncompliance. On October 30, 2007, a release of 240-250 gallons of raw water occurred in the 241-C Tank Farm surface contamination area. ST 4511, Condition S.4.A.1 states, "No discharge shall be allowed within a surface contaminated area (areas with dangerous waste and/or radioactive contaminants)." Ecology was notified of the raw water release within the tank farms on October 30, 2007. During the notification discussion, Ecology agreed that the 30-day report required by the ST 4511 permit was to be submitted by November 30, 2007. The required 30-day report specific to Condition G.11.C is provided in Attachment 1. The CH2M HILL reporting checklist is provided in Attachment 2.

If you have any questions, please contact me, or your staff may contact Dennis W. Bowser, Office of Environmental Safety and Quality, (509) 373-2566.

Sincerely,

Shirley J. Olinger, Manager  
Office of River Protection

ESQ:DWB

Attachments: (2)

cc: See page 2

**RECEIVED**  
NOV 28 2007  
**EDMC**

Ms. Jane A. Hedges  
07-ESQ-215

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cc w/attachs:

D. W. Hendrickson, Ecology  
N. A. Homan, FHI  
Administrative Record 5-2-4  
CH2M HILL Correspondence  
Environmental Portal, LMSI

cc w/o attachs:

B. G. Erlandson, BNI  
J. C. Fulton, CH2M HILL  
C. J. Kemp, CH2M HILL  
P. C. Miller, CH2M HILL  
L. L. Penn, CH2M HILL  
J. Cox, CTUIR  
S. Harris, CTUIR  
B. Becker-Khaleel, Ecology  
K. A. Conaway, Ecology  
S. L. Dahl, Ecology  
S. L. Derrick, Ecology  
J. L. Hensley, Ecology  
J. J. Lyon, Ecology  
O. S. Wang, Ecology  
D. Bartus, EPA  
D. Zhen, EPA  
J. A. Bates, FHI  
K. A. Peterson, FHI  
G. Bohnnee, NPT  
K. Niles, Oregon Energy  
M. F. Jarvis, RL  
J. Martell, WDOH  
R. Jim, YN

Attachment 1  
07-ESQ-215

CH2M HILL Hanford Group, Inc. Report of State Waste Discharge  
Permit ST 4511 Noncompliance

## REPORT OF STATE WASTE DISCHARGE PERMIT ST 4511 NONCOMPLIANCE

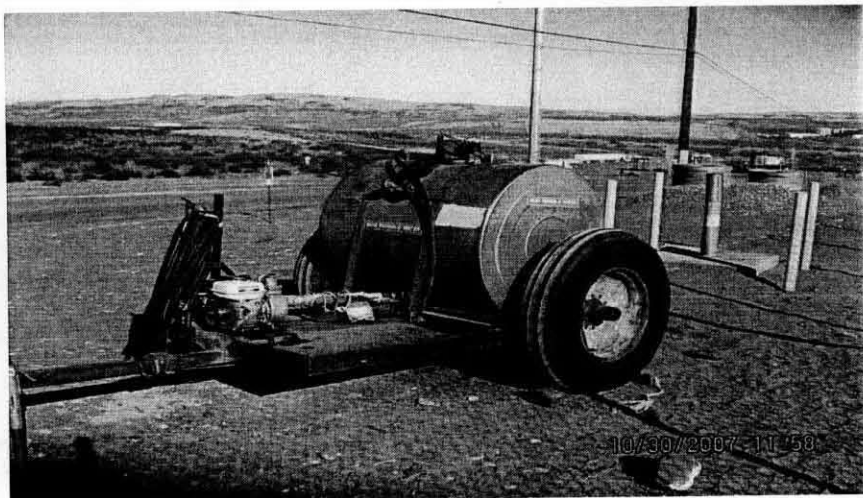
**Date of Discovery:** October 30, 2007

**Type of Incident:** On Tuesday, October 30, 2007, a CH2M HILL Hanford Group, Inc. (CH2M HILL) sub-contractor inadvertently discharged approximately 240-250 gallons of raw water to the ground in 241-C Tank Farm during operation of a water wagon to support work package CLO-WO-07-1346, "241-C-109, Set Diversion Box (POR209)," dust control activities.

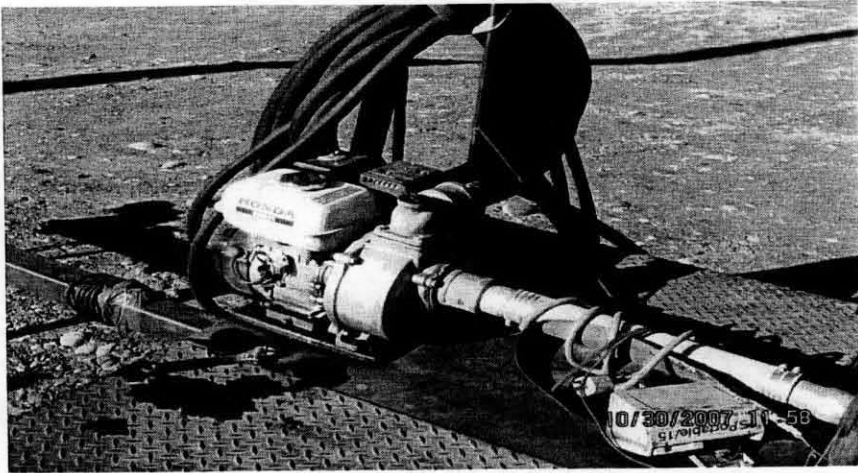
- (1) **Permit ST 4511, Condition G.11.C.1** *A description including location cause, name, title, and telephone number of the individual reporting.*

On October 30, 2007, at the U.S. Department of Energy Hanford Site, the installation of a diversion box in 241-C Tank Farm required site preparation to level the ground and to provide crane access to the area by providing a steel plate bridge over yellow jacket (electrical cable protection).

The work crew was to excavate to allow the installation of bridging material over the yellow jacket. During excavation, raw water from a 300-gallon mobile water tank is used for dust control. The water trailer is equipped with a gasoline motor powered pump. The photograph below shows the water wagon, isolation valve, the gasoline driven pump and the water discharge hose.



The water wagon was positioned outside the farm in a convenient location for the work activity. During operation the water is withdrawn from the water tank via the gasoline driven pump and discharged through a water meter and water hoses to the job location approximately 150 feet from the water wagon. The photograph below is a close-up of the gasoline driven pump and water discharge hose. The pump suction valve is not visible in this picture.



The work crew drains the hoses, the water tank, water meter, and pump during freezing weather to protect the equipment. The water hose from the pump discharge had been disconnected on October 29, 2007, as were the hoses on either side of the water meter located approximately 15 feet away from the water wagon inside the farm. The water meter was moved and placed in a container box during the night.

The normal practice for water trailer use is for a support individual outside the tank farm to connect the hose to the pump discharge, and start the pump with the pump suction valve closed before the work crew enters the farm. Starting the pump prior to entry was considered to be a good practice by the work crew to ensure the pump is operational and warmed up prior to crew entering the farm. Once the pump is started the work crew enters the farm and installs the water meter and connects the hoses previously disconnected. The crew then communicates with the outside individual to valve in the water. This method has worked successfully numerous times in the past. The photograph below is a close up of the valve that was in the open position when the pump was first started. This valve is normally closed during startup to prevent discharge of water once the pump is started.

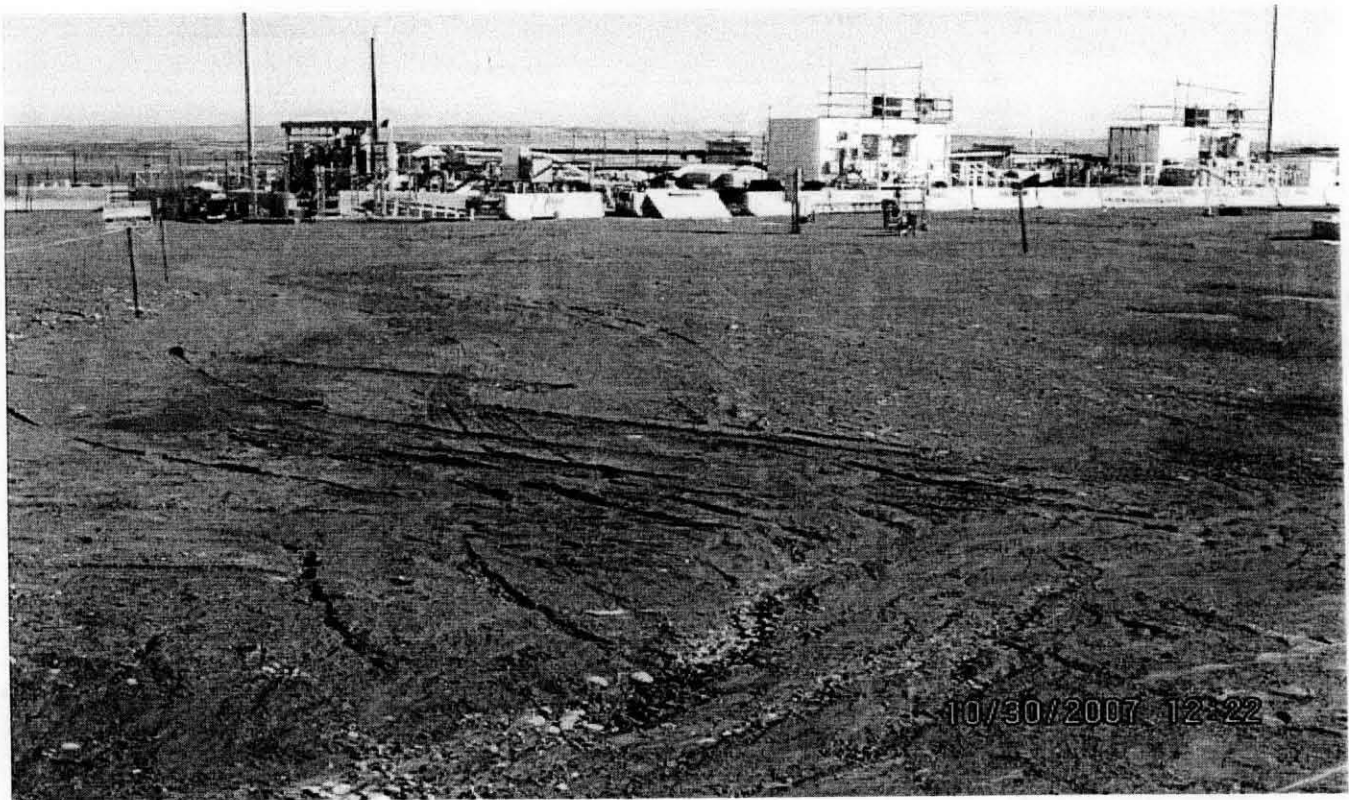


On October 30, 2007, the work crew followed the same protocol, failed to notice the water pump isolation valve was open, and started the pump. With the valve open and the pump running the water immediately began to run out of the hose on the ground inside 241-C Tank Farm. Once satisfied the pump was running the crew was notified the pump was running and they should enter the farm.

The work crew entered the farm and from several hundred feet away immediately noticed the water was running out of the hose from the location where the water meter was normally installed. A work crew individual notified an individual outside of the fenced area of the water running out of the hose and directed them to secure the pump and shut the isolation valve. The pump was secured, the isolation valve closed, and the water discharge to 241-C Tank Farm stopped. The work crew exited the farm and notified supervision.

P. C. Miller made notification to Mr. B. L. Derrick of the Washington State Department of Ecology on October 30, 2007.

The photograph below shows the extent of the spill area.



- (2) **Permit ST 4511, Condition G.11.C.2** *Estimated quantity that resulted from the incident*

240-250 gallons of raw water spilled to the soil as a result of the incident.

- (3) **Permit ST 4511, Condition G.11.C.3** *Whether the noncompliance has been corrected and the release has been cleaned up*

The raw water infiltrated into the soil and cleanup of the wetted soil was not possible. The noncompliance has been corrected by preparing a water wagon checklist.

- (4) **Permit ST 4511, Condition G.11.C.4** *The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance*

A pump pre-start checklist has been developed and implemented:

WATER WAGON

OPERATING INSTRUCTIONS

The following instructions shall be followed for use.

- 1) Insure that valve "B" is in the closed position.
- 2) Open valve "A".
- 3) Receive concurrence that the field verification has been performed by the designated person.
- 4) Start pump.
- 5) Open valve "B" as required to pump water.

- (5) **Permit ST 4511, Condition G.11.C.4** *The period(s) in which the incident occurred.*

The incident occurred on October 30, 2007.

- (6) **Permit ST 4511, Condition G.11.C.6** *Any other information necessary to fully evaluate the situation and to develop an appropriate course of action*

No additional information is necessary.



Attachment 2  
07-ESQ-215

CH2M HILL Hanford Group, Inc. Notification of Water Spill from the  
Water Wagon at the 241-C Tank Farm on October 30, 2007

Figure 4. River Protection Project/Washington State Department of Ecology Reporting Checklist.

WA 7890008967 (Waste Generator Number) CNS: CH2M- 0701039

Section 1: Occurrence

- Material release Yes ☒ No ☐ Identity of released material: RAW WATER  
MSDS No.: \_\_\_\_\_ Quantity: \_\_\_\_\_ Regulated Yes ☐ No ☒ Reportable Quantity (RQ)  
Yes ☐ No ☐ Reason regulated \_\_\_\_\_
- Resource Conservation and Recovery Act Contingency Plan implemented Yes ☐ No ☒
- Double-Shell Tank Leak Detection System Yes ☐ No ☒
- Single-Shell Tank Leak Assessment Process Yes ☐ No ☒
- Single-Shell Tank Drywell Logging Yes ☐ No ☒
- Double-Shell Tank Inadvertent Waste Transfer Yes ☐ No ☒
- ST4511 Permit Non-Compliance (G.11) Yes ☒ No ☐
- ST4511 Permit Upset (S.8) Yes ☐ No ☒
- Location: 241-C FARM
- Date and Time of Discovery: 10/30/07 0853
- Description of Occurrence: Water supply to hose used for dust control was turned on (pump started) before water meter/valve was installed on hose inside farm. Approximately 240 gallons of water discharge inside 241-C Farm, which is a posted (underground & surface) contamination) area (Permit condition S.4.A.1)

Section 2: Agency Notification

- Date: 10/30/07 Time: 1100 hours
- Washington State Department of Ecology (Eric Van Mason) 372-7929 (cell 430-5144); (fax 372-7971) N/A
  - Washington State Department of Ecology Central Washington Region Office (release of dangerous waste or hazardous substance) 1-509-575-2494/2490 N/A
  - National Response Center (NRC) 1-800-424-8802 N/A
  - Occurrence Notification Center (RQ, RCRA Contingency Plan) 376-2900 N/A
  - ST4511 Permit Violation (Ecology, ~~Kathy Conway~~) 372-7890 at 1100 hours  
Bud DERRICK (Conaway out of office)

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ENVIRONMENTAL NOTIFICATION	Effective Date	October 9, 2007

Figure 4. River Protection Project/Washington State Department of Ecology Reporting Checklist.  
(cont.)

CH2M-0701039

### Section 3: ORP/TFC Notifications

1. CH2M HILL General Counsel: (FAX 372-1397) 10/30/07 N/OOIV
2. CH2M HILL Vice President, Environmental Programs: (FAX 373-3833) \_\_\_\_\_
3. Office of River Protection: Environmental (Lori Huffman) (FAX 376-3661) \_\_\_\_\_  
OSD (FAX 373-1313) \_\_\_\_\_
4. CH2M HILL Point of Contact John D Guberski 376-5087  
Name/Phone Number